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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,335	11/26/2001	Junji Nagaoka	MTS-3288US	7419

7590 10/18/2004

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 10/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/994,335	Applicant(s) NAGAOKA ET AL. m	
	Examiner Jorge L Ortiz-Criado	Art Unit 2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species of Fig. 1 claims 1-5 and 9-16 is acknowledged.

The traversal is on the ground(s) that claims 6-7 and 8, that correspond to Species (b) and (c) respectively, are indirectly dependent on claim 1.

This is not found persuasive because

M.P.E.P. § 806.04 (a) as reproduced below:

--35 U.S.C. 121 provides that restriction may be required to one of two or more independent and distinct inventions. However, 37 CFR 1.141 provides that a reasonable number of species may still be claimed in one application if the other conditions of the rule are met--.

Provides that the reasonable numbers of species maybe claimed, *“if the other conditions of the rule (37 C.F.R. 1.141) are met”*

37 C.F.R. 1.141 (a) reproduced below provides:

-- two or more independent and distinct inventions may not be claimed in one national application, except that more than one species of an invention, not to exceed a reasonable number, may be specifically claimed in different claims in one national application, provided the application also includes an allowable claim gen-eric to all

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the claimed species and all the claims to species in excess of one are written in dependent form (§ 1.75) or otherwise include all the limitations of the generic claim”

Currently, this application contains claims to a plurality of **species with no allowable generic claims**; therefore the conditions of the rule as provided in M.P.E.P. § 806.04 (a) are not met.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 6-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Specie, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 7, 2004.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "**means**" and "**said**," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

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3. The abstract of the disclosure is objected to because the form and legal phraseology often used in patent claims, such as "**means**" should be avoided. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "the mirror region" in the second line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitations " the average level"; "the Off-state of tracking control"; "the data region " in the third, fourth lines of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 13 and 14 are rejected under 35 U.S.C 101 because they are drawn to “a program”. Since a program is merely a set of instructions capable of being executed by a computer, the program itself is not a process. A program, without the computer readable medium needed to realize the program’s functionality, is nonstatutory functional descriptive material. The Examiner suggest changing the preamble to “i.e. A readable medium having a program including instruction...” See MPEP 2106.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-5 and 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim U.S. Patent No. 5,828,637.

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Regarding claim 1, Kim discloses an optical disk apparatus comprising:

an optical head having lens means of converging light from a light source onto an optical disk; and a photodetector for detecting the light thus converged and then reflected from said optical disk (See col. 12, line 63 to col. 13, line 46; Fig. 7);

tracking error signal generating means of generating a tracking error signal in order to perform tracking control on the basis of said detected light (See col. 12, line 63 to col. 13, line 46; Fig. 7, signals "TEp");

detecting means of detecting a disk tilt "DT" indicating the amount of tilt of said optical head relative to said optical disk (See col. 12, line 63 to col. 13, line 46; Fig. 7, signal "Ts"); and

calculating means of calculating a lens shift LS indicating the amount of shift of said lens means relative to said optical head, according to a predetermined rule on the basis of said generated tracking error signal and said detected disk tilt DT (See col. 13, line 63 to col. 14, line 56; fig. 7, ".delta. R")

Regarding claim 2, Kim discloses wherein said predetermined rule is expressed by the following

$$\text{Equation } T = a \cdot LS + b \cdot DT$$

which is satisfied among: the value T of said generated tracking error signal; said detected disk tilt DT; and said lens shift LS to be calculated; when predetermined constants a and b are given (See col. 14, line 56, equation (12))

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Regarding claim 3, Kim discloses wherein said detecting means can detect said disk tilt DT (See col. 7, lines 21-52; col. 12, line 63 to col. 13, line 46; Fig. 7, signal “Ts”)

Regarding claim 4, Kim discloses an optical head driving means of driving said optical head within the cross section in a radius direction of said optical disk on the basis of the result of said detection of said disk tilt DT, wherein when said tracking error signal is detected, said optical head is driven so that said detected disk tilt DT substantially becomes zero (See col. 7, lines 21-52; col. 12, line 63 to col. 14, line 56; Fig. 7)

Regarding claim 5, Kim discloses wherein: said detecting means can detect the reproduction state of the information from said optical disk; said optical disk apparatus comprises optical head driving means of driving said optical head within the cross section in a radius direction of said optical disk on the basis of the result of said detection of said reproduction state of said information; and when said tracking error signal is detected, said optical head is driven so that said reproduction state of said information becomes optimum (See col. 12, line 63 to col. 14, line 56; Fig. 7)

Regarding claim 9, Kim discloses wherein said tracking error signal is detected in “the mirror region” of said optical disk (See col. 12, line 63 to col. 13, line 56; Fig. 7; reflective part, where the light is reflected)

Regarding claim 10/(claim 3), Kim discloses wherein said tracking error signal is detected by detecting the average level of said tracking error signal in the OFF-state of tracking control in the data region in the vicinity of the disk radius position of said optical disk where said disk tilt DT or said lens tilt LT is detected (See col. 12, line 63 to col. 13, line 56; Fig. 7 “phase difference of the tracking error signal”)

Regarding claim 11, Kim discloses conveying means of conveying said optical head in a radius direction of said optical disk on the basis of said calculated lens shift LS (See col. 7, lines 21-52; col. 12, line 63 to col. 14, line 56; Fig. 7)

Regarding claim 12, Method claims 12 are drawn to the method of using the corresponding apparatus claimed in claim 1. Therefore method claims 12 correspond to apparatus claim 1 and are rejected for the same reasons of anticipation as used above.

Regarding claim 13/(claim1), A program for causing a computer to serve as all or part of said tracking error signal generating means, said detecting means, and said calculating means (This feature is inherent to Kim, since Kim inherently provides a computer to control the apparatus)

Regarding claim 14, A program for causing a computer to carry out all or part of said generating step, said disk tilt detecting step, and said calculating step of said method of calculating the amount of lens shift (This feature is inherent to Kim, since Kim inherently provides a computer to control the apparatus using the method)

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Regarding claim 15/(claim1), A computer-processable medium carrying a program for causing a computer to serve as all or part of said tracking error signal generating means, said detecting means, and said calculating means of said optical disk (This feature is inherent to Kim, since Kim inherently provides a computer to control the apparatus and the program saved in a readable medium to be used by the computer)

Regarding claim 16. A computer-processable medium carrying a program for causing a computer to carry out all or part of said generating step, said disk tilt detecting step, and said calculating step of said method of calculating the amount of lens shift (This feature is inherent to Kim, since Kim inherently provides a computer to control the apparatus using the method)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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TAN DINH
PRIMARY EXAMINER

10/15/04